

## REMARKS

Claims 1-17 have been amended, and claims 1-20 remain in the application

### Claim Rejections – 35 USC § 101

Claim 14 has been rejected under 35 U.S.C. 101 and 35 U.S.C 112, first paragraph because allegedly the invention is not supported by a disclosure in the specification and the skilled person would not know how to make the claimed invention.

Claim 14 relates to a dermabrasion device which includes means for driving the support with an oscillating motion and a to-and-fro motion perpendicular to the oscillating motion, simultaneously with or instead of the oscillating motion. The description and drawings illustrate in detail the oscillating drive but do not spell out details of the to-and-fro drive.

However, the skilled person has no difficulty in providing a to-and-fro motion in an oscillating device, this being possible by well known means like the use of a cam.

The rejection of claim 14 under 35 U.S.C § 103 states that “providing a to-and-fro motion to have a vibration in a device is well known. It would be obvious to one of ordinary skill in the art to provide Ignon -'983 with a to-and-fro motion to have a vibration effect in the device as this motion is well known in the art”. The Applicant respectfully points out that this latter objection goes contrary to the objection raised under 35 U.S.C. § 101.

The Applicant submits that if the skilled person is directed to provide a to-and-fro motion the implementation of such motion is within the ambit of his ordinary skill and, even without an explicit disclosure in the description the skilled person would know how to make the claimed invention. This is implied by the objection to claim 14 under 35 U.S.C § 103.

The Applicant therefore submits that the objection under 35 U.S.C. § 101 is not substantiated and respectfully asks the Examiner to review and withdraw this objection.

Claim Rejections – 35 USC § 102

Original claims 1-3, 8-9, 16 and 19-20 stand rejected under 35 USC § 102 as being anticipated by Ignon (6,629,983).

The Applicant respectfully traverses this objection on the basis of the amended claims for the following reasons.

Amended claim 1 covers a device for skin dermabrasion through gentle contact of the skin with an abrasive. The device comprises a handleable housing and abrasive driving means, which corresponds to Ignon's disclosure. According to amended claim 1, the device is characterized by the fact that it comprises, in combination, an oscillatory arcuate abrasive surface and a support surface that surrounds the oscillatory arcuate abrasive surface. The arcuate abrasive surface extends along an arc of a cylindrical surface with the abrasive surface on the curved outside of the arc. The arcuate abrasive surface is held by a support mounted in or on the housing for an oscillatory motion allowing oscillation of the arcuate abrasive surface about the axis of said cylindrical surface. The support surface surrounds the oscillatory arcuate abrasive surface at least on two opposing sides leaving a gap to allow oscillating motion of the arcuate abrasive surface in said gap. Furthermore, the device is arranged in such a way as to allow, solely by the manual application of the support surface against the skin and around the region of the skin to be treated, the gentle contact of this region of the skin with the oscillating arcuate abrasive surface.

Ignon, on the other hand, does not have an oscillatory arcuate abrasive surface.

Ignon's abrasion element can be an oscillating blade 94 (Fig. 8), but this is not an oscillatory arcuate abrasive surface. Ignon's abrasion element can alternatively be a stationary or rotating wheel 100 (Fig. 9), but again this is not an oscillatory arcuate abrasive surface.

Ignon's oscillating blade 94 oscillates between the terminal lines 96,98 shown in Fig. 8, which

occupy the entire space in the opening 37c. The blade 94 can oscillate under the power of the applied vacuum which pulls a portion of the skin through the hole and moves the skin portion into contact with the abrasive element /blade 94 (Abstract, lines 6-8). Ignon's blade 94 functions as a scraper as it is drawn along the skin 63 (col. 4, lines 52-53). Such scraper scrapes the skin to remove debris that can be removed by the vacuum.

Thus Ignon does not disclose an arcuate abrasive surface extends along an arc of a cylindrical surface with the abrasive surface on the curved outside of the arc. *A fortiori* Ignon does not disclose an arcuate abrasive surface that is held by a support mounted in or on the housing for an oscillatory motion allowing oscillation of the arcuate abrasive surface about the axis of the cylindrical surface. Moreover, Ignon's support surface (the projection 90 with opening 37c) does not surround an oscillatory arcuate abrasive surface at least on two opposing sides leaving a gap to allow oscillating motion of the arcuate abrasive surface in the gap. Instead, Ignon's oscillating scraper blade occupies the entire width of the opening 37c. Furthermore, Ignon's device is not arranged in such a way as to allow, solely by the manual application of the support surface against the skin and around the region of the skin to be treated, the gentle contact of this region of the skin with the oscillating arcuate abrasive surface. Instead, the skin is pulled against Ignon's oscillating scraper blade by the application of suction, and the scraping action of the blade 94 is not to be equated with a gentle contact of this region of the skin with the oscillating arcuate abrasive surface.

Amended claim 1 must thus be held to be novel over Ignon's disclosure.

Claims 2-3, 8-9, 16 and 19-20 all depend on claim 1 and are novel over Ignon for the same reasons. In addition the Applicant makes the following comments about the subject matter of these claims.

Amended claim 2 specifies that the (oscillatory) arcuate abrasive surface is at the level of the

support surface or inset up to 2 mm relative to this surface, and the lateral gap between the arcuate abrasive surface and the edges of the support surface is between 1 and 4 mm on each side. Ignon does not describe an oscillating arcuate surface, nor does he specify an arcuate abrasive surface that is inset up to 2 mm relative to a (lateral) support surface, nor does he specify the dimensions of the lateral gap allowing oscillation of the arcuate abrasive surface, which will allow, solely by the manual application of the support surface against the skin and around the region of the skin to be treated, the gentle contact of this region of the skin with the oscillating arcuate abrasive surface as specified in claim 1. Instead, Ignon teaches the use of vacuum to pull a portion of the skin through the hole and to move the skin portion into contact with the abrasion element (claim 1, last-but-one inset clause). Ignon's disclosure is thus distinct from and teaches away from the arrangement as claimed in Applicant's claim 2.

Claim 3 specifies in combination with claim 1 that the arcuate abrasive surface is carried on a piece of rigid or flexible material that is removably mounted on the oscillating support. Ignon however does not disclose an abrasive surface that is carried on a piece of rigid or flexible material that is removably mounted on an oscillating support. Ignon's only oscillating support is the oscillating blade 94 (Fig. 8). In other embodiments Ignon's abrasive surface is stationary. Ignon's Fig. 9 shows a stationary or rotating abrasive wheel 100, but the description does not disclose an abrasive surface is carried on a piece of rigid or flexible material that is removably mounted on an oscillating support. Therefore Ignon's disclosure does not describe or suggest the features of claim 3.

Claim 8 specifies that claim 1's support surface is constituted by the edges of an element removably-mounted on the housing and claim 9 specifies that the support surface is constituted by the edges of the housing. These additional features correspond to Ignon's Figure 5; however these features are claimed in combination with the novel subject matter of claim 1.

Claim 16 covers a process for cosmetic skin treatment by microepidermabrasion, using the device according to claim 1. This process involves applying the support surface of the device against skin around a region of the skin to be treated, oscillating the arcuate abrasive surface about its axis and allowing, solely by the manual application of the support surface against the skin, the oscillating abrasive on the arcuate surface to gently contact the skin to treat the skin's epidermis. As pointed out above, Ignon does not describe oscillating an arcuate abrasive surface; the only oscillation described by Ignon concerns the blade 94 (Fig. 8) which scrapes the skin. Scraping by a rotating blade corresponds to prior-art dermplaning treatments to remove the surface layers of the skin : see the discussion on page 1, lines 20-22 of the application. Such scraping treatments do not provide a microepidermabrasion as claimed that is produced by gently contacting an arcuate oscillatory abrasive surface against the skin. Moreover, Ignon describes the use of vacuum to "pull a portion of the skin through the hole"; obviously this does not correspond to the now-claimed gentle contact with an arcuate abrasive surface.

Claim 19 specifies that the process is for an anti-wrinkle treatment, treatments for blemishes, stretch marks, acne, scars, depilation or for scalp treatment. Although dermabrasion treatments are suggested in Ignon, such dermabrasion treatments are always with the use of the device as described by Ignon, and there is no description or suggestion in Ignon to use a device as set out in Applicant's amended claim 1.

Claim 20 specifies that the process is for skin microepidermabrasion. As discussed above, Ignon's device is described for dermabrasion but not for skin microepidermabrasion which can however be achieved by the Applicant's use of an oscillatory arcuate abrasive surface applied gently against the skin. Ignon in fact distinguishes between microdermabrasion (which in the prior art was achieved by directing sand or grit carried by an airflow) whereas dermabrasion refers to the mechanical movement of an abrasive element against the skin. Compare Ignon's prior art disclosure (col. 1 lines 12-38) with the

Applicant's prior art discussion (page 1, line 11 to page 2, line 27). It follows that Applicant has provided a mechanical device for skin microepidermabrasion by the gentle application of an arcuate oscillators abrasive surface against the skin, which could not be achieved by prior devices except by spraying sand/grit.

Therefore, in summary, the Applicant submits that all claims are novel over Ignon for the reasons given above, and requests that this ground of rejection be removed.

Claim Rejections – 35 USC § 103

Original claims 4-7, 10-11, 13-15 and 17-18 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Ignon, 6,629,983

The Applicant submits that amended claim 1 is non-obvious over Ignon for the following reasons.

Amended claim 1 differs from Ignon as set out above under "Novelty".

The technical effect achieved by the claimed device, contrary to Ignon's vacuum-operated device with an oscillating scraper blade, is to allow for the gentle cosmetic microdermabrasion of the skin without any risk of penetration beyond the epidermis.

This is achieved by providing the claimed dermabrasion device with an oscillatory arcuate surface that is held by a support mounted in or on the device's housing for an oscillatory motion of the arcuate abrasive surface about the axis of the cylindrical surface. The claimed device's support surface surrounds the oscillatory arcuate abrasive surface at least on two opposing sides leaving a gap to allow oscillating motion of the arcuate abrasive surface in the gap. Moreover, the claimed device is arranged in such a way as to allow, solely by the manual application of the support surface against the skin and

around the region of the skin to be treated, the gentle contact of this region of the skin with the oscillating arcuate abrasive surface.

There is no description or suggestion in Ignon to replace the oscillating scraper blade 94 by an oscillatory arcuate abrasive surface oscillating in a gap in the support surface. There is also no description or suggestion in Ignon to replace the stationary or rotating wheel 100 by an oscillatory arcuate abrasive surface oscillating in a gap in the support surface. There is furthermore no description or suggestion in Ignon to modify his device in such a way as to allow, solely by the manual application of the support surface against the skin and around the region of the skin to be treated, the gentle contact of this region of the skin with an oscillating arcuate abrasive surface. As a matter of fact, Ignon teaches away from this by emphasizing the use of vacuum to pull the skin through the hole in the support.

It follows that a skilled person starting from Ignon's disclosure cannot in any obvious manner reach the subject matter of amended claim 1.

Concerning claims 2 to 20, the Applicant refers to the discussion of claims 2-3, 8-9, 16 and 19-20 above under novelty, and for the remaining claims submits as follows.

The Applicant concedes that Ignon discloses interchangeable pieces with different abrasive surfaces, as set out in claim 4. However Ignon's interchangeable abrasive surfaces of Fig. 3 are never arcuate abrasive surfaces with the abrasive on the curved outer face, which was unobvious as for claim 1.

As regards claim 5, Ignon's reversible abrasive pieces of Fig. 2 and Fig. 3 are never described in connection with a removable mounting on an oscillating support. Ignon's only oscillating support is the axle of the oscillating scraper blade of Fig. 9. Ignon however contains no description or suggestion to

have a reversible piece on an oscillating support, the reversible piece carrying an arcuate abrasive surface as defined in the preceding claims.

For claim 6, Ignon has no suggestion of a removable piece as previously defined with an arcuate abrasive surface on one side and a massage surface on the other side (which allows incidental use of the device to carry out a massage).

As for claim 7, Ignon does not disclose or suggest a removable U-shaped element for support surface, the (arcuate) abrasive surface being removable through the open end of the U-shaped element. The objection states that “changing the shape of an element and orientation of an element are within level of one of ordinary skill in the art”. The Applicant submits the claim does not merely specify a shape and orientation, but it sets out in combination with claim 1 an inventive configuration of the device that enables its operation for microdermabrasion while facilitating the removal and replacement of different arcuate abrasive surfaces.

The Applicant concedes that the extra features of claims 10 and 11 (variation of the speed of oscillation and range of oscillatory speeds) would not further patentably distinguish over Ignon. However, these claims derive their inventive step from claim 1.

As to claim 12, the Applicant notes that this claim was considered allowable in combination with claim 1.

Claim 14 has already been discussed above in connection with the objection under 35 U.S.C. 101. The Applicant submits in the first place that claim 14 is inventive in combination with claim 1 and in the second place, as stated above, if the skilled person is directed to provide a to-and-fro motion the implementation of such motion is within the ambit of his ordinary skill and, even without an explicit disclosure in the description the skilled person would know how to make the claimed

invention. Because the skilled person is enabled to carry out the teaching from his general knowledge nevertheless in no way detracts from the fact that the claimed subject matter is unobvious over Ignon. Unobviousness is furthermore corroborated by the fact that the Ignon disclosure contains no suggestion for combining a to-and-fro motion with an oscillating motion to allow for incidental use of the device to carry out a massage. Ignon's only disclosure of oscillation is the oscillating blade 94 and it would be plainly counter-productive to make this blade move to-and-fro because this would not massage the skin but would lead to skin damage. Therefore there is no obvious way the skilled could modify Ignon to arrive at the subject matter of claim 14.

Notwithstanding this, as pointed out in discussing the §101 objection, once the skilled person has conceived the idea underlying claim 14, he has no difficulty in implementing the to-and-fro motion.

Claim 15 specifies that the oscillatory support carrying the abrasive is cylindrical and has at least one arcuate abrasive surface on its cylindrical surface. Ignon's wheel 100 of Fig. 9 is stationary or rotatable. There is no suggestion to make Ignon's wheel 100 oscillate, nor to have on its surface an arcuate abrasive surface that oscillates in the gap with the opposing sides of the support surface, as specified in claim 1. Thus the subject matter of claim 15 cannot be reached from Ignon in an obvious way.

Claims 17 and 18 specify additional features of claim 16's inventive process.

In summary, the Applicant submits none of the amended claims can be reached in an obvious way from the Ignon disclosure and requests that the objection under 35 USC § 103 be withdrawn.

In view of the above the Applicant respectfully requests reconsideration of the objections raised and an indication that the application can pass to allowance.

Respectfully submitted,

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